

## REDESCRIPTION OF *Poltys illepidus* C.L.KOCH, 1843\* WITH FIRST RECORD OF MALE FROM INDIA

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### ABSTRACT

Male of *Poltys illepidus* C.L.Koch, 1843\* is recorded first time from comparatively dry area of Melghat region of Satpuda Range, India. Female specimen of this species have already been reported. In the present paper, male and female specimens of *P. illepidus* are described.

**Keywords:** *Poltys* C. L. Koch, 1843, male, first record, Satpuda, Taxonomy.

### INTRODUCTION

*Poltys* C. L. Koch, 1843 is represented by 43 species worldwide and India represents 7 species which is about 16 % of the total species abundance of this genus worldwide. Most of the authors have described the female and this is the first description of male *Poltys illepidus* C.L.Koch, 1843 from India.

### MATERIALS AND METHODS

Both the specimens of *Poltys* were collected in night during field work in December, 2014 from Melghat region of Maharashtra, India. Photographs of live specimens were taken with Fugi camera. The material was preserved in 70% alcohol with all legs and pedipalp spread properly. Male pedipalp and female epigyne were cleared in situ with 1% KOH. All measurements are in mm. Leg measurements are given (including Coxa, Trochanter, Femur, Patella, Tibia, Metatarsus and Tarsus). The terms used in the genital descriptions follow Levi (1982). SEM of male palp is taken from VNIT College, Nagpur.

**Abbreviations used:** S: Spermathecae; Sc: Scape; r: Ridge; Cd: Copulatory duct; Fd: Fertilization duct; St: Swollen tarsus; Ti: Tibia; P: Paracymbium; ST: Subtegulum; T: Tegulum; Pm: Paramedian Apophysis; C: Conductor; MA: Median Apophysis.

### TAXONOMY

***Poltys* C. L. Koch, 1843**

***Poltys illepidus* C.L.Koch, 1843\***

(Fig. A-G)

Material Examined: Both male and female

### **Description of male of *Poltys illepidus* C.L.Koch, 1843\***

Carapace (L: 1.08; W: 0.87); Abdomen (L: 1.31; W: 0.96); Total body Length: 2.49mm.

**Cephalothorax:** Carapace is nearly pear-shaped dorsally, comparatively longer than wide with prominently protruding ocular tubercle at the anterior end. Eyes are arranged on a snout like projection of the cephalic region. Laterals are widely spaced. Ocular quad. nearly square and is situated on a tubercle. Anterior median eyes & Posterior median eyes nearly equal in size. Posterior laterals comparatively larger while Anterior Laterals smaller. Clypeus length app. half of the dist. b/w the AME. Sternum

light brown in shade and nearly shield-shaped with slightly sinuous sides while sclerites are present on coxae III & IV. Densely clothed with numerous white hairs & group of strong spines in the middle of sternum. Sternum apically concave while posteriorly ending in coxae IV.

Chelicerae show 4 unequally sized teeth on promargin & 3 teeth on retromargin. Maxillae nearly parallel with almost equal in width, scopular bunch is present on the apical tip of white hairs. Labium nearly dome-shaped, apical domed-shaped region white while the basal region darker in shade.

Legs, 3 clawed, presence of stubby hairs on coxae & ring of converging white hairs on trochanter, presence of rows of spines on metatarsus & half of tibia (postero-lateral) on leg I. The feature of spine arrangement is also present on leg II and III while leg IV doesn't show these arranged spines. Patellar and tibial segment of leg I and II having macrosetae flattened into leaf-like blades.

Leg measurements: I: 4.39 (0.20; 0.20; 1.43; 0.20; 1.05; 0.87; 0.44); II: 4.16 (0.20; 0.19; 1.38; 0.19; 1.00; 0.82; 0.38); III: 3.06 (0.18; 0.18; 0.70; 0.18; 0.85; 0.64; 0.33); IV: 4.07 (0.20; 0.20; 1.32; 0.18; 1.00; 0.80; 0.37). Leg formula- I, II, IV, III.

**Abdomen:** Abdomen slightly oval to ellipsoid and is widest at the anterior region. Dorsum furnished with grey to dark hairs and is decorated with a pattern of scattered wavy lines. Dorsum otherwise lacking prominent humps. Spinnerets compactly placed, enclosed in a ring of white hairs. All spinnerets equal in size, colulus distinct cone-shaped.

The palp is quite well developed and complex having short but prominent paracymbium, embolus stout, arising dorsally and sharply curved rod, tapering to a point after curve. Terminal apophysis also arising dorsally, with a narrow base and paramedian apophysis with nearly a pointed sclerotised bump.

#### **Description of Female *Polys illepidus***

Female specimen appears similar to male but quite bigger, with also the abdomen nearly hexagonal and dorsal humps are not those prominent as in male. Dorsum of abdomen having numerous differently sized humps, while 2 sharp, prominent humps are present on the antero-lateral region and also scattered sigillar depression can be seen on the rough dorsum. Lateral sides of abdomen having uneven and wavy margins. Legs are robust and furnished with hairs. Femora of leg I only slightly broadened, patellar and tibial macrosetae are flattened. Female palp well developed with dentations (app. 3). Female palp densely clothed with dark hairs and strong spines.

Total Body Length: 18.69mm. Carapace (L: 7.16; W: 4.87); Abdomen (L: 11.53; W: 9.21).

Leg measurements: I: 16.26 (0.52; 0.43; 3.90; 0.78; 4.10; 4.11; 2.42); II: 15.36 (0.51; 0.41; 3.63; 0.67; 3.87; 4.01; 2.26); III: 13.16 (0.42; 0.37; 3.00; 0.48; 2.98; 3.88; 2.03); IV: 15.18 (0.52; 0.42; 3.56; 0.68; 3.82; 3.96; 2.22). Leg formula- I, II, IV, III.

Clearly visible epigastric furrow with numerous hairs, darker in appearance highly sclerotised. White hairs are scattered near the epigastric furrow. Epigyne showing a median ridge on the scape dorsally while lateral extensions of the scape folded inwards attaching the oval and comparatively small spermathecae.



Figure - 1, Male *Poltys illepidus* C.L.Koch, 1843



Figure - 4, Female *Poltys illepidus* C.L.Koch, 1843



Figure - 6, *Poltys illepidus* C.L.Koch, 1843  
Epigyne (Dorsal view)

St: Swollen tarsus; Ti: Tibia; P: Paracymbium; ST: Subtegulum; T: Tegulum; Pm: Paramedian Apophysis; C: Conductor; MA: Median Apophysis.



Figure - 2, *Poltys illepidus*,  
Abdomen- Dorsal view (Male)

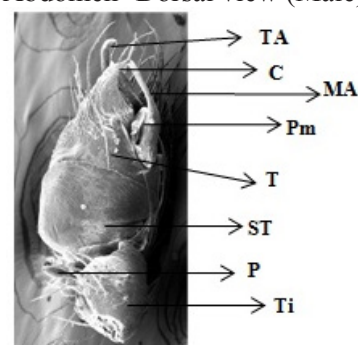


Figure - 3, *Poltys illepidus*, Palp



Figure - 5, *Poltys illepidus*,  
Abdomen- Dorsal view (Female)

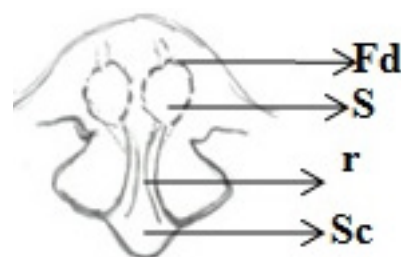


Figure - 7, *Poltys illepidus* C.L.Koch, 1843  
Epigyne (Dorsal view)  
Fd: Fertilization duct; S: Spermatheca  
r: Ridge; Sc: Scape

## DISCUSSION

*Poltys*, a genus within Araneidae a spinner of a very fine orb web and is nocturnal in habit. It is cited active in night time while it rests during day hours. *Poltys* shows excellent camouflage activity and sometimes it becomes difficult to differentiate as it resembles broken twig ends and soil lump.

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